TABLE 7

Points	Apex (mm)	Radius (mm)	Base (mm)
1	0.55	0.57	0.88
2	0.57	0.58	0.85
3	0.56	0.56	0.85
4	0.58	0.55	0.87
5	0.55	0.54	0.88
6	0.57	0.54	0.86
7	0.57	0.56	0.86
8	0.58	0.55	0.86
9	0.57	0.55	0.87
10	0.57	0.57	0.88
Average	0.57	0.56	0.87

Also, thickness deviation of a shell of a commercially available mammary prosthesis known to be manufactured using a conventional rotary drying method was analyzed, and measurement results of the thickness of each part of the shell are shown in Table 8. In this regard, thickness deviation between the thickest portion and the thinnest portion of the shell is approximately 19.8%.

Table 8 below shows measurement results of the thickness of each part of the round type shell manufactured using the conventional rotary drying method.

TABLE 8

Point	Apex (mm)	Radius (mm)	Base (mm)
1	0.59	0.51	0.49
2	0.58	0.49	0.46
3	0.56	0.46	0.46
4	0.54	0.47	0.46
5	0.61	0.46	0.47
6	0.55	0.48	0.47
7	0.57	0.45	0.48
8	0.57	0.45	0.49
9	0.58	0.50	0.49
10	0.54	0.48	0.48
Average	0.57	0.48	0.48

From the results shown in Table 8, it can be confirmed that the shell of the silicone prosthesis manufactured using the manufacturing method according to the present invention has a smaller thickness deviation as compared to the silicone prostheses manufactured using the conventional methods.

As is apparent from the above description, according to a round or anatomical type silicone prosthesis having a shell with enhanced durability and the manufacturing method thereof, the silicone shell forming an outer appearance of the silicone prosthesis has an entirely uniform thickness without thickness deviation and thus stress concentration may be minimized by eliminating the difference in physical characteristics and stress to thus maximize resistance to fatigue rupture. Moreover, there is no deformation of or no damage to products even after long-term use of the silicone prosthesis and thus the safety and lifespan of the silicone prosthesis are maximized, which leads to increased reliability for the use of the products.

In addition, according to the round or anatomical type silicone prosthesis having a shell with enhanced durability and the manufacturing method thereof, the silicone shell is manufactured by coating a mold body with a silicone solution and drying the resulting mold body, corresponding to the types and size of products, i.e., silicone prostheses of a round or anatomical type, and thus has a uniform thickness regardless of various shapes and sizes of products.

In addition, according to the round or anatomical type silicone prosthesis having a shell with enhanced durability and the manufacturing method thereof, the silicone prosthesis has a smoothly and forwardly curved surface and a uniform and small thickness and thus has superior texture and comfort when implanted into the body and improved product quality.

Moreover, according to the round or anatomical type silicone prosthesis having a shell with enhanced durability and the manufacturing method thereof, overall manufacturing processes for forming the silicone shell are automated, which results in productivity improvement, reduced personnel expenses, convenience of operation, quality reproducibility, and maximized product quality.

Furthermore, according to the round or anatomical type silicone prosthesis having a shell with enhanced durability and the manufacturing method thereof, a drying process is performed after completely attaching the silicone solution to the surface of the mold body having a shape of the silicone prosthesis, and thus, an adhesive strength between the silicone solution and the mold body is increased and therefore prevents the silicone shell from being detached from the mold body during the drying process. In addition, the size of the silicone prosthesis is accurately standardized, and thus the quality of products may be improved.

Although the preferred embodiments of a round or anatomical type silicone prosthesis having a shell with enhanced durability and a manufacturing method thereof have been disclosed for illustrative purposes, those skilled in the art will appreciate that various modifications, additions and substitutions are possible, without departing from the scope and spirit of the invention as disclosed in the accompanying claims.

What is claimed is:

1. A method of manufacturing a round or anatomical type silicone prosthesis comprising a silicone shell, the method comprising the steps of:

coating a silicone solution on a mold body having a shape of the silicone prosthesis;

drying the coated mold body in a drying device to form the silicone shell;

during the drying step, adjusting a silicone thickness in a manner such that a jig is disposed in an inner space of the drying device to fix the mold body, the mold body is fixed to the jig, and the jig is then continuously rotated and tilted at various angles to uniformly adjust the thickness of the silicone shell using fluidity of silicone, wherein, in the silicone thickness adjustment step, the jig of the drying device is periodically or non-periodically tilted within a predetermined angle in all directions including front, rear, left and right directions while securing the mold body so that it does not self-rotate on a longitudinal axis of the jig;

a silicone etching step using a barrier member included in the drying device to define upper and lower spaces of the drying device and spraying an organic chemical solution onto the silicone shell through a microsprayer;

a silicone hardening step to harden the resulting mold body to form the silicone shell; and

a mold separation step to separate the silicone shell from the mold body.

2. The method according to claim **1**, wherein in the silicone thickness adjustment step the jig of the drying device further comprises a jig displacement configuration such that the jig rotates or revolves about a center axis at a revolution angle ranging from 1 to 360° and is continuously revolved by repeating a temporary stop at every determined angle within 1 to 180° among rotation displacements for a certain period of time.

3. The method according to claim **1**, wherein the silicone solution coating step is performed by immersing the mold